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What is Claimed is:

1. An aqueous dispersion for chemical mechanical polishing characterized in that for chemical mechanical polishing of an interlayer insulating film with an elastic modulus of no greater than 20 GPa as measured by the nanoindentation method, the number of scratches with a maximum length of 1 μm or greater is an average of no more than 5 per unit area of 0.01 mm^2 of the polishing surface.
2. An aqueous dispersion for chemical mechanical polishing according to Claim 1, wherein said interlayer insulating film is silsesquioxane, fluorine-containing SiO_2 , a polyimide-based resin or benzocyclobutene.
3. An aqueous dispersion for chemical mechanical polishing according to Claim 2, wherein said number of scratches with a maximum length of 1 μm or greater is an average of no more than 3 per unit area of 0.01 mm^2 of the polishing surface.
4. An aqueous dispersion for chemical mechanical polishing characterized by comprising a scratch inhibitor and an abrasive.
5. An aqueous dispersion for chemical mechanical polishing according to Claim 4, wherein said scratch inhibitor is at least one from among (1) biphenol, (2) bipyridyl, (3)

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2-vinylpyridine and 4-vinylpyridine, (4) salicylaldoxime, (5) o-phenylenediamine and m-phenylenediamine, (6) catechol, (7) o-aminophenol, (8) thiourea, (9) an N-alkyl group-containing (meth)acrylamide, (10) an N-aminoalkyl group-containing (meth)acrylamide, (11) a heterocyclic compound with a heteropentacycle and with no aromatic ring forming the skeleton, (12) a heterocyclic compound with a heteropentacycle and with an aromatic ring forming the skeleton, (13) phthalazine, (14) a compound with a heterohexacycle bearing three nitrogen atoms, and a derivative of any of compounds (1) through (14).

6. An aqueous dispersion for chemical mechanical polishing according to Claim 4, wherein said scratch inhibitor is a surfactant.

7. An aqueous dispersion for chemical mechanical polishing according to Claim 4, wherein said scratch inhibitor is 7-hydroxy-5-methyl-1,3,4-triazaindolizine.

8. An aqueous dispersion for chemical mechanical polishing according to Claim 4, wherein said abrasive consists of inorganic particles, organic particles or organic/inorganic composite particles.

9. An aqueous dispersion for chemical mechanical polishing according to Claim 8, wherein said organic/inorganic composite particles are formed by polycondensation of an

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alkoxysilane, aluminum alkoxide or titanium alkoxide in the presence of polymer particles of polystyrene or polymethyl methacrylate.

10. An aqueous dispersion for chemical mechanical polishing according to Claim 8, wherein said organic/inorganic composite particles have organic particles and inorganic particles with zeta potentials of opposite signs bonded by electrostatic force.

11. An aqueous dispersion for chemical mechanical polishing according to Claim 8, which further comprises an oxidizing agent.

12. An aqueous dispersion for chemical mechanical polishing according to Claim 11, wherein said oxidizing agent is hydrogen peroxide.

13. An aqueous dispersion for chemical mechanical polishing according to Claim 11, which further comprises an organic acid.

14. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films, characterized by comprising a scratch inhibitor and an abrasive.

15. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 14, wherein said scratch inhibitor is at least one from among

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(1) biphenol, (2) bipyridyl, (3) 2-vinylpyridine and 4-vinylpyridine, (4) salicylaldoxime, (5) o-phenylenediamine and m-phenylenediamine, (6) catechol, (7) o-aminophenol, (8) thiourea, (9) an N-alkyl group-containing (meth)acrylamide, (10) an N-aminoalkyl group-containing (meth)acrylamide, (11) a heterocyclic compound with a heteropentacycle and with no aromatic ring forming the skeleton, (12) a heterocyclic compound with a heteropentacycle and with an aromatic ring forming the skeleton, (13) phthalazine, (14) a compound with a heterohexacycle bearing three nitrogen atoms, and a derivative of any of compounds (1) through (14).

16. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 14, wherein said scratch inhibitor is a surfactant.

17. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 16, wherein said scratch inhibitor is 7-hydroxy-5-methyl-1,3,4-triazaindolizine.

18. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 14, wherein said abrasive consists of inorganic particles, organic particles or organic/inorganic composite particles.

19. An aqueous dispersion for chemical mechanical

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polishing of interlayer insulating films according to Claim 18, wherein said organic/inorganic composite particles are formed by polycondensation of an alkoxysilane, aluminum alkoxide or titanium alkoxide in the presence of polymer particles of polystyrene or polymethyl methacrylate.

20. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 18, wherein said organic/inorganic composite particles have organic particles and inorganic particles with zeta potentials of opposite signs bonded by electrostatic force.

21. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 18, which further comprises an oxidizing agent.

22. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 21, wherein said oxidizing agent is hydrogen peroxide.

23. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 21, which further comprises an organic acid.

24. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 21, wherewith for chemical mechanical polishing of an interlayer insulating film with an elastic modulus of no

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greater than 20 GPa as measured by the nanoindentation method, the number of scratches with a maximum length of 1 μm or greater is an average of no more than 5 per unit area of 0.01 mm^2 of the polishing surface.

25. An aqueous dispersion for chemical mechanical polishing of interlayer insulating films according to Claim 24, wherein said interlayer insulating film is silsesquioxane, fluorine-containing SiO_2 , a polyimide-based resin or benzocyclobutene.